

Thing Plus Dual-Port Logging Shield

DEV-19217

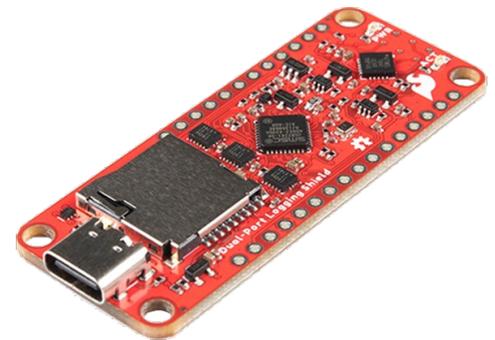
Product Overview

09/14/2022

For the most up-to-date information, visit www.mouser.com or the supplier's website.

Description

SparkFun Thing Plus Dual-Port Logging Shield is a Thing Plus/Feather-compatible board that allows the user to access the microSD over both SPI and USB-C. This board is designed to be mounted on or under the Thing Plus boards. The dual-port logging shield includes an ATtiny841 microcontroller that acts as an arbiter. The ATtiny841 microcontroller automatically puts the dual-port logging shield into SPI mode when the Thing Plus is powered. The ATtiny will put the shield into SDIO thumb drive mode if the computer powers the shield by connecting the system via USB-C. The user can switch between the two modes if both the Thing Plus is powered and the computer is connected by giving the ATtiny841 commands over I²C.



The thing plus dual-port logging shield features a push-push microSD socket, activity LED (for SDIO thumb drive mode), power LED, USB2241 ultra-fast USB 2.0 controller, and simple I²C command set.

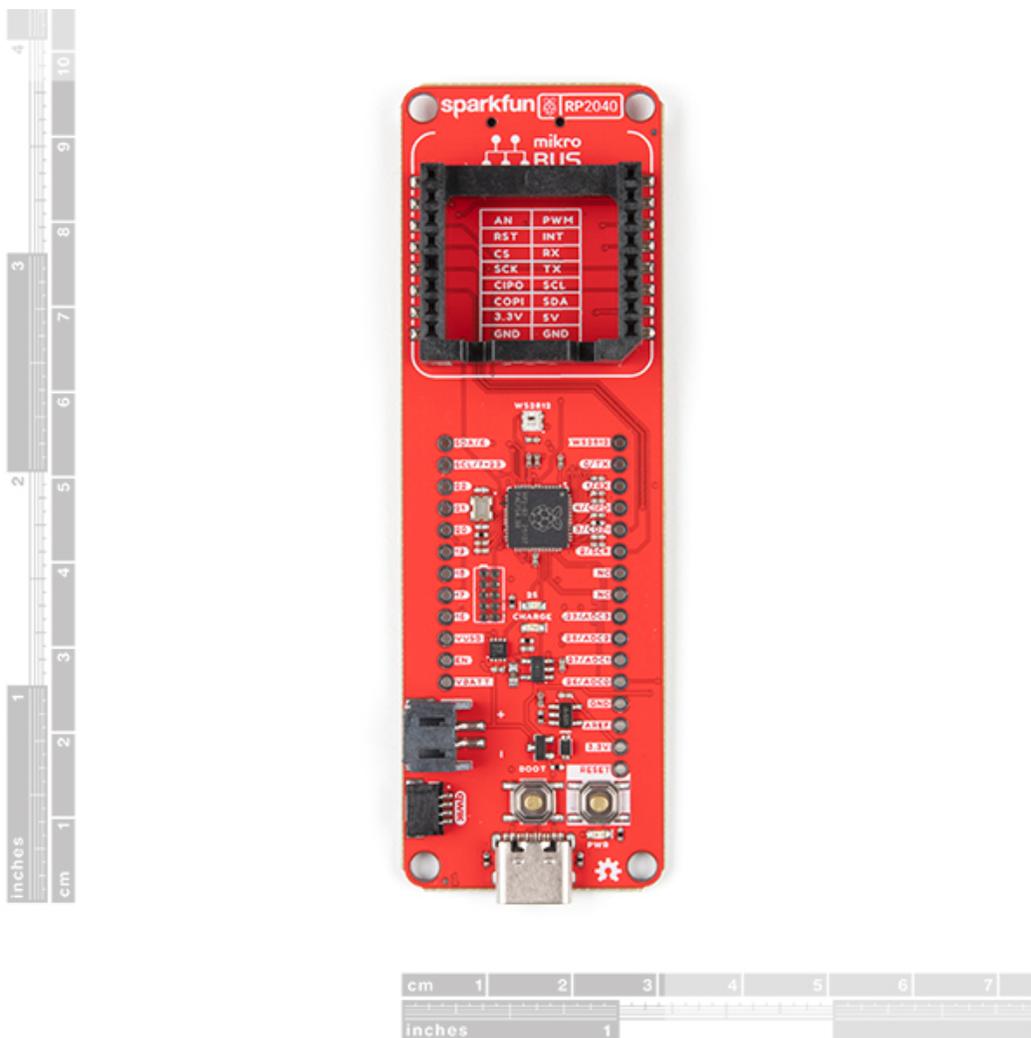
Features

- Thing Plus/Feather-compatible footprint and breakout pins
- ATtiny841 microcontroller:
 - The ATtiny841 acts as an arbiter and can put the shield into either SPI or SDIO (thumb drive) mode
- USB2241 ultra-fast USB 2.0 media controller:
 - Supports cards up to 32GB
 - Supports FAT32, exFAT, and NTFS
 - Up to 35 MBytes/second (card-dependent) read and write speed
 - The board includes solder pads for an optional 24C04 I²C EEPROM
- Push-push microSD socket
- Simple I²C command set to switch modes and set the default mode
- Can be powered by:
 - Thing Plus/Feather 3.3V
 - USB-C 5V
 - Or both

Features

- Full power control:
 - 300µA sleep current (PWR LED disabled)
- Power source voltage sensing
- Activity LED (for SDIO thumb drive mode)
- Power LED (configurable)

Board Dimensions



Schematic

- [Thing Plus Dual-Port Logging Shield](#)

Mouser Part Number

[View Part](#)

To learn more, visit <https://www.mouser.com/new/sparkfun/sparkfun-thing-plus-dual-port-logging-shield/>